

IN THE CLAIMS:

Claims 1-25 (cancelled).

26. (currently amended) A ball game apparatus for playing a ball game, said ball game apparatus being configured to operate with a screen of a display device, said ball game apparatus comprising:

an input device including a handle to be moved in a three-dimensional space by a game player, to produce a movement for simulating an attempted interception of a ball; a first signal-generator incorporated in said input device to output an acceleration correlated signal according to an acceleration upon moving said input device in the three-dimensional space to produce said movement for simulating an attempted interception of a ball, said acceleration correlated signal indicating a plurality of different non-zero acceleration values;

a second signal-generator incorporated in said input device to output a second signal in response to said accelerated correlation signal; and

a game processor for

displaying a ball character on said screen of said display device,
receiving said second signal, and
determining, based on said second signal and a moving timing of
said ball character that is a position of said ball character in a depth
direction in said screen, a moving direction of said ball character as a
parameter for a movement of the ball character after a hit.

27. (previously presented) The game apparatus according to claim 26, wherein said game processor determines a moving direction of said ball character by further taking an approaching course of said ball character into account.

28. (previously presented) The game apparatus according to claim 26, wherein said game processor determines a moving speed of said ball character in accordance

with a level of said acceleration.

29. (previously presented) The game apparatus according to claim 26, wherein said first signal-generator includes a piezoelectric buzzer.

30. (previously presented) The game apparatus according to claim 26, wherein said game processor detects a timing that said acceleration reaches a peak value, and determines based on said timing and said moving timing of said ball character said moving direction of said ball character.

31. (previously presented) The game apparatus according to claim 26, wherein said game processor detects a timing that said acceleration reaches a predetermined value, and determines based on said timing and said moving timing of said ball said moving direction of said ball character.

32. (previously presented) The game apparatus according to claim 26, wherein said second signal-generator comprises:

second signal transmitting means for transmitting the second signal in a wireless manner, and

enabling means for enabling said second signal transmitting means to transmit the second signal when a magnitude level of said acceleration is equal to or larger than the predetermined level.

33. (currently amended) The game apparatus according to claim 26, further comprising a memory,

said game processor including an operation processing means, image processing means, and sound processing means and-a-memory;

said operation processing means executing a program code stored in said memory and calculating a position, moving direction and speed of the ball character on the basis of an acceleration correlated signal outputted from said first signal-generator ;

said image processing means generating image information including the ball character by use of image data stored in said memory under control of said operation processing means;

 said sound processing means reproducing sound by use of sound data stored in said memory under control of said operation processing means;

 said memory being used for said operation processing means to hold a process and result of an operation.

34. (previously presented) The game apparatus according to claim 33, wherein said memory includes a non-volatile semiconductor memory.

35. (previously presented) The game apparatus according to claim 26, wherein said ball game is a baseball game,

 said input device including a bat input device.

36. (previously presented) The game apparatus according to claim 26, wherein

 said ball game is a game using a racket,

 said input device including a racket input device.

37. (previously presented) The game apparatus according to claim 32, wherein said second signal transmitting means includes an infrared-ray emission element, further comprising a light receiving element which receives the infrared-ray from said infrared-ray emission element.

38. (previously presented) The game apparatus according to claim 26, wherein said first signal-generator includes a pair of acceleration sensors which are provided so as to sandwich an origin, and said game processor evaluates a moving speed of said input device in accordance with a sum of detection values of said pair of acceleration sensors and a rotating speed of said input device in accordance with a difference of said detection values of said pair of acceleration sensors.

39. (currently amended) A ball game apparatus for playing a ball game, said ball game apparatus being configured to operate with a screen of a display device, said ball game apparatus comprising:

an input device including a handle to be moved in a three-dimensional space by a game player, to produce a movement for simulating an attempted interception of a ball;

a first signal-generator incorporated in said input device to output a first signal, said first signal being a step function of a force generated upon moving said input device in said three-dimensional space by said game player ;

a second signal-generator incorporated in said input device to output a second signal in response to said first signal; and

a game processor for

displaying a ball character on said screen of said display device,

receiving said second signal, and

determining, based on a timing of said second signal and a moving timing that is a position of said ball character in a depth direction in said screen, a moving direction of said ball character as a parameter for a movement of said ball character after a hit.

40. (previously presented) The game apparatus according to claim 39, wherein said game processor determines a moving direction of said ball character by further taking an approaching course of said ball character into account.

41. (previously presented) The game apparatus according to claim 39, wherein said first signal-generator includes a weight elastically biased by a spring.

42. (currently amended) The game apparatus according to claim 39, further comprising a memory,

said game processor including an operation processing means, image processing means, and sound processing means and a memory;

said operation processing means executing a program code stored in said

memory and calculating the moving direction of the ball character on the basis of the second signal and the position of said ball character;

 said image processing means generating image information including the ball character by use of image data stored in said memory under control of said operation processing means;

 said sound processing means reproducing sound by use of sound data stored in said memory under control of said operation processing means;

 said memory being used for said operation processing means to hold a process and result of an operation.

43. (previously presented) The game apparatus according to claim 42, wherein said memory includes a non-volatile semiconductor memory.

44. (previously presented) The game apparatus according to claim 39, wherein said ball game is a baseball game,

 said input device including a bat input device.

45. (previously presented) The game apparatus according to claim 39, wherein

 the ball game is a game using a racket,

 said input device including a racket input device.

46. (previously presented) The ball game apparatus according to claim 39, wherein said second signal-generator comprises a transmitter that transmits said second signal in a wireless manner.

47. (currently amended) The ball game apparatus according to claim 46, wherein said transmitter includes an infrared-ray emission element, and said ball game apparatus further comprises further comprising a light receiving element which receives the infrared-ray from said infrared-ray emission element.

Claims 48-51 (Cancelled)

52. (currently amended) A non-volatile computer readable An information storage medium including a program readable by a game processor in a ball game apparatus for playing a ball game, said ball game apparatus being configured to operate with a screen of a display device, said ball game apparatus comprising:

an input device including a handle to be moved in a three-dimensional space by a game player, to produce a movement for simulating an attempted interception of a ball;

a first signal-generator incorporated in said input device to output an acceleration correlated signal according to an acceleration upon moving said input device in the three-dimensional space to produce said movement for simulating an attempted interception of a ball, said acceleration correlated signal indicating a plurality of different non-zero acceleration values;

a second signal-generator incorporated in said input device to output a second signal in response to said accelerated correlation signal; and

said program causing said game processor to:

display a ball character on said screen of said display device,

receive said second signal, and

determine, based on said second signal and a moving timing of said ball character that is a position of said ball character in a depth direction in said screen, a moving direction of said ball character as a parameter for a movement of the ball character after a hit.

53. (currently amended) A non-volatile computer readable An information storage medium including a program readable by a game processor in a ball game apparatus for playing a ball game, said ball game apparatus being configured to operate with a screen of a display device, said ball game apparatus comprising:

an input device including a handle to be moved in a three-dimensional space by a game player, to produce a movement for simulating an attempted interception of a ball;

a first signal-generator incorporated in said input device to output a first signal, said first signal being a step function of a force generated upon moving said input device in said three-dimensional space by said game player;

a second signal-generator incorporated in said input device to output a second signal in response to said first signal, said program causing said game processor to:

display a ball character on said screen of said display device,
receive said second signal, and

determine, based on a timing of said second signal and a moving timing that is a position of said ball character in a depth direction in said screen, a moving direction of said ball character as a parameter for a movement of said ball character after a hit.

54. (previously presented) The ball game apparatus according to claim 26 wherein said first signal-generator is configured to generate said acceleration correlated signal to have a varying pulse width according to an acceleration upon moving said input device in said three-dimensional space.

55. (previously presented) The ball game apparatus according to claim 26 further including a plurality of transmitters, each transmitter transmitting said acceleration correlated signal in a wireless manner from a respective surface of said input device.

56. (previously presented) The ball game apparatus according to claim 26 wherein the second-signal-generator generates a second signal that includes the acceleration correlated signal.

57. (previously presented) The ball game apparatus according to claim 39 wherein the second-signal-generator generates a second signal that includes the first signal.

58. (new) A method for operating with a ball game apparatus for playing a ball game, the ball game apparatus being configured to operate with a screen of a display

device, the ball game apparatus comprising:

an input device including a handle to be moved in a three-dimensional space by a game player, to produce a movement for simulating an attempted interception of a ball;

a first signal-generator incorporated in the input device to output an acceleration correlated signal according to an acceleration upon moving the input device in the three-dimensional space to produce the movement for simulating an attempted interception of a ball, the acceleration correlated signal indicating a plurality of different non-zero acceleration values;

a second signal-generator incorporated in the input device to output a second signal in response to the accelerated correlation signal,

the method comprising:

displaying a ball character on the screen of the display device;

receiving the second signal; and

determining, based on the second signal and a moving timing of the ball character that is a position of the ball character in a depth direction in the screen, a moving direction of the ball character as a parameter for a movement of the ball character after a hit.

59. (new) A method for operating with a ball game apparatus for playing a ball game, the ball game apparatus being configured to operate with a screen of a display device, the ball game apparatus comprising:

an input device including a handle to be moved in a three-dimensional space by a game player, to produce a movement for simulating an attempted interception of a ball;

a first signal-generator incorporated in the input device to output a first signal, the first signal being a step function of a force generated upon moving the input device in the three-dimensional space by the game player;

a second signal-generator incorporated in the input device to output a second signal in response to the first signal,

the method comprising:

displaying a ball character on the screen of the display device,

receiving the second signal, and

determining, based on a timing of the second signal and a moving timing that is a position of the ball character in a depth direction in the screen, a moving direction of the ball character as a parameter for a movement of the ball character after a hit.